ON

AUSCULTATION OF THE HEART.

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SECOND EDITION.

LONDON:
J. & A. CHURCHILL, 11, NEW BURLINGTON STREET, W.

[1872]

AN ANALYSIS OF THE SOUNDS OBTAINED ON AUSCULTATION OF THE HEART IN HEALTH AND DISEASE.

MITRAL VALVE.

SYSTOLE.

1. *IN HEALTH*

The first long sound is produced by the contraction of the ventricle, and the flapping together of the auriculo-ventricular valves,

Compared to the whisper of "lupp" in the expression "lupp-dupp."

2. *IN DISEASE*

A long murmur dying gradually away.

Heard loudest below the left breast.

Propagated towards the axilla.

Should be heard at lower angle of scapula.

3. *MURMUR DUE TO*

Incompetency of the valve.

A part of the blood being thrown back into the auricle,

The remaining portion passing feebly into the circulation.

4. *PULSE*

Consequently small—often irregular.

DIASTOLE.

1. *IN HEALTH*

The second short sound is coincident with the dilatation of the ventricle, and is

Produced by the column of blood passing from the auricle into the ventricle and the closure of the sigmoid valves,

Compared to the syllable "dupp."

2. *IN DISEASE*

A short murmur terminating abruptly.

Heard loudest below the left breast.

Propagated towards the lower end of the sternum.

Not generally heard at lower angle of scapula.

3. *MURMUR DUE TO*

Thickening of the segments of the valve or constriction of the orifice, so that the column of blood passing from the auricle into the ventricle is impeded.

4. *PULSE*

Not necessarily altered in character—sometimes

The first long sound,

Compared to the syllable "lubb."

Produced by the rush of blood through the aortic orifice, the contraction of the ventricle and the distension of the aorta.

2. *IN DISEASE*

A blowing murmur somewhat prolonged, heard loudest at the base.

Propagated towards the right of the upper part of the sternum in the course of the vessels,

Or heard below the nipple.

The situation of the murmur is often limited to one spot.

3. *MURMUR DUE TO*

An imperfect condition of the aortic valves, or lining membrane of the ascending aorta, from

Deposit beneath or upon the epithelial coat.

4. *PULSE*

Generally strong and jerking, or small and hard.

The second short sound,

Compared to the syllable "dubb,"

Produced by the flapping together of the sigmoid valves—the result of contraction of the distended aorta propelling the column of blood equally in all directions, assisted by the dilatation of the ventricle.

2. *IN DISEASE*

The aortic diastole is either absent or it is converted into a short well-defined murmur heard loudest at the junction of the upper and middle third of the sternum, or between the cartilages of the third and fourth ribs.

3. *MURMUR DUE TO*

Incompetency of the aortic valve—the column of blood regurgitating in part into the ventricles in consequence of the imperfect approximation of the three segments.

4. *PULSE*

Is jarring or splashing, visible, and rapidly disappears.

*** The sounds may be further altered in character,

By the deposit of lymph upon the surface of the heart causing friction,

Or by pericardial effusion, the sounds being muffled.